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an anti-adhesive surface coating acting as a protective layer, wherein the coating contains at least one compound selected from the group consisting of fluorormocers, fluorine-containing silanes, polymeric fluorocarbon resins, and partially fluorinated polymers, and wherein the element is one of a sensor element and an actuator element, and the element includes an outer surface of at least one of silicon, silicon nitride, silicon dioxide, glass, metal and a ceramic.

REMARKS

Claims 1, 4-6, 8-10, and 12-17 are currently pending in this application. Claim 1 has been amended to clarify the subject matter contained therein. It is respectfully submitted that the amendment does not add new matter, has support throughout the Specification, and puts claim 1 and its dependent claims in allowable condition. Entry of the amendment is therefore respectfully requested.

I. THE FINALITY OF THE PRESENT OFFICE ACTION

The Final Office Action alleges that Applicants' amendments necessitated new grounds of rejection and, as such, the present Office Action was made final. Respectfully, Applicants disagree and kindly request that the finality of the present Office Action be withdrawn.

In the immediately previous Office Action dated February 26, 2002, claims 14-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,606,952 to Sugimoto et al. (hereinafter "Sugimoto") in view of U.S. Patent No. 4,345,465 to Gruner et al. (hereinafter "Gruner"). In response to the Office Action dated February 26, 2002, claim 1 was amended to recite that the element "is composed of at least one of silicon, silicon nitride, silicon dioxide, glass, metal and a ceramic." In the present Final Office Action, claims 14-16 were again rejected under 35 U.S.C. § 103(a) as unpatentable over Sugimoto in view of Gruner, as well as claims 1, 4-6, 8-10, and 12-13, and 17.

Under the present PTO practice, "second or any subsequent actions on the merits shall be final, except where the Examiner introduces a new ground of rejection that is [not] necessitated by Applicant's amendment of the claims" It is respectfully submitted that the new rejections of claims 1, 4-6, 9-10, 12-13, and 17 under 35 U.S.C. § 103(a) were not necessitated by Applicants' amendments.

Claim 1, as amended by the response to the Office Action dated February 26, 2002, contains all the limitations of old claim 1 prior to the amendment. Thus, the amendment of claim 1 served only to further limit the claim. For this reason, if the Examiner desired to reject claim 1 under 35 U.S.C. § 103(a) over Sugimoto in view of Gruner, he could have done so in the Office Action dated February 26, 2002 using the same rationale used to support the rejection of claim 1 in the present Final Office Action. Therefore, it is respectfully submitted that the new rejection of claim 1 was not necessitated by the amendment to claim 1.

As regards claims 4-6, 9-10, 12-13, and 17, each of these claims depends from claim 1, and none of these claims were amended in response to the Office Action dated February 26, 2002. Thus, like claim 1, the Examiner could have elected to reject these claims as unpatentable over Sugimoto in view of Gruner in the Office Action dated February 26, 2002 -- this, however, he failed to do. Therefore, it is respectfully submitted that the new obviousness rejections of claims 4-6, 9-10, 12-13, and 17 were not necessitated by any claim amendment, let alone by the amendment to claim 1.

For at least the foregoing reasons, it is respectfully requested that the finality of the present Office Action be withdrawn.

II. REJECTION OF CLAIMS 1, 4-6, 8-10, 12, 13, AND 17 UNDER 35 U.S.C. § 102(b)

Claims 1, 4-6, 8-10, 12, 13, and 17 were rejected under 35 U.S.C. § 102(b) as anticipated by Gruner. Respectfully, Applicants traverse.

Newly amended claim 1 recites, *inter alia*, an element for use in a motor vehicle, in which "the element includes **an outer surface** of at least one of silicon, silicon nitride, silicon dioxide, glass, metal, and a ceramic."

Gruner purportedly concerns a probe for measuring flow rate and/or temperature of a flowing medium. In one embodiment, a resistor pattern is sandwiched between two thin sheets of heat-resistant synthetic polyimide resin. (See Gruner, col. 1, lines 40-54). The outer surfaces of the two sheets are further provided with a hydrophobic coating, such as hexafluoropropylene. (See Gruner, col. 1, lines 60-66).

To reject a claim based on anticipation, an individual reference must disclose each and every element as set forth in the claim. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). Since Gruner states that the hydrophobic coating is applied to the two thin sheets of heat-resistant synthetic polyimide resin (i.e., a polymer), Gruner simply does not disclose an anti-adhesive surface coating applied to an element including "**an outer surface** of at least one of silicon, silicon nitride, silicon dioxide, glass, metal and a ceramic," as recited in claim 1.

For at least these reasons, it is respectfully submitted that Gruner does not disclose each and every element of claim 1. Accordingly, it is kindly requested that the rejection of claim 1 under 35 U.S.C. § 102(b) be withdrawn, as well as the rejections of claims 4-6, 8-10, 12, 13, and 17, all of which ultimately depend from claim 1.

III. REJECTION OF CLAIMS 1, 4-6, 8-10, AND 12-17 UNDER 35 U.S.C. § 103(a)

Claims 1, 4-6, 8-10, and 12-17 were rejected as unpatentable over Sugimoto in view of Gruner. Respectfully, Applicants traverse.

Applicants' invention, as recited in claims 1, 4-6, 8-10, and 12-17, is directed to an actuator element having an internal sensor element provided with an anti-adhesive coating. In some embodiments, other parts of the actuator

element may be provided with the anti-adhesive coating, in addition to the sensor element. These parts may include, for example, the inner walls of the gas or air supply channel of the actuator element and/or the measuring channel cover of the actuator element. (Specification, page 5, lines 8-12). In this manner, the anti-adhesive coating serves to protect portions of the actuator element from contaminants.

Sugimoto purportedly concerns a fluororubber laminate for use in fuel hoses and fuel pump diaphragms, in which the fluororubber layer and an NBR layer are firmly bonded through vulcanization. (See Sugimoto, col. 1, lines 9-50).

The references used to support an obviousness rejection must be analogous prior art, i.e., either related to the same field of Applicants' endeavor or reasonably pertinent to the particular problem with which the invention is concerned. *In re Oetiker*, 977 F.2d 1443, 1446 (Fed. Cir. 1992). Furthermore, to establish a *prima facie* case of obviousness of a claim, a combination of prior art references must disclose each and every element of the claim. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991).

As regards Sugimoto, this reference is neither related to the field of actuator sensor element coatings nor reasonably pertinent to the protection of sensor elements from contaminants. Instead, Sugimoto is directed to the entirely unrelated field of fluororubber laminates for fuel hoses and fuel pump diaphragms. Thus, it is respectfully submitted that Sugimoto is non-analogous art and, as such, may not be used to support obviousness rejections of claims 1, 4-6, 8-10, and 12-17.

Independent of the above, Sugimoto fails to cure the critical deficiencies of Gruner with respect to claim 1. Namely, Sugimoto does not disclose an anti-adhesive surface coating applied to an element including "an outer surface of at least one of silicon, silicon nitride, silicon dioxide, glass, metal and a ceramic." Therefore, Sugimoto and Gruner,

whether considered individually or in combination, fail to disclose each and every element of claim 1.

For at least the foregoing reasons, it is kindly requested that the rejection of claim 1 under 35 U.S.C. § 103(a) be withdrawn, as well as the rejections of claims 4-6, 8-10, and 12-17, all of which ultimately depend from claim 1.

IV. CONCLUSION

Applicants respectfully submit that the present invention is new, non-obvious, and useful. Reconsideration and allowance of all pending claims is therefore earnestly solicited.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claim 1 has been amended as follows:

1. (Four Times Amended) An element for use in a motor vehicle, comprising:

an anti-adhesive surface coating acting as a protective layer, wherein the coating contains at least one compound selected from the group consisting of fluorormocers, fluorine-containing silanes, polymeric fluorocarbon resins, and partially fluorinated polymers, and wherein the element is one of a sensor element and an actuator element, and the element includes an outer surface [is composed] of at least one of silicon, silicon nitride, silicon dioxide, glass, metal[,] and a ceramic.